

BRUHATH BANGALORE MAHANAGARA PALIKE, Dasarahalli Zone					
Office of the Executive Engineer Dasarahalli Division					
Schedule - II					
Name of Work: Providing RO Plant in Ward no 13 Shettyhalli Sub Division					
SI No	Description of Work	Unit	Quantity	Sanctioned Rate	
				In Figures	In Words
1	Earthwork excavation for foundation of buildings, water cum supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m after breaking of clods complete as per specifications	Cum	102.60	309.45	
2	KSRB 4-1.2 : Providing and laying in position plain cement concrete of cum mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.	Cum	4.19	5517.80	
3	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammer dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications	Cum	7.47	4578.48	
4	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications.	Cum	3.74	5472.97	
5	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded cum granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.	No's	0.41	5949.73	
6	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.70cum and fine aggregates @ 0.47cum, with superplasticiser @ 3lts conforming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in ground floor level for roof slabs, staircase, lintels and beams retaining walls, return walls, walls (any thickness) including attached pilasters, columns, Unties, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fiHets etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications	Cum	2.55	6962.31	
7	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1 m in depth including cost of all materials, labour complete as per specifications	Sqm	2.49	279.94	
8	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications	Tonne	0.26	66273.75	


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9	Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations complete including pulling hooks, 4Nos. handles with all fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery complete as per specifications	Sqm	6.24	3129.60
10	Providing and fixing top covers made out of 20 guage M.S. sheet over pull and push rolling shutters bent to shape including cost of red lead primer coat of painting, materials, labour, HOM of machinery complete as per specifications.	mtr	2.40	617.23
11	Providing, fabricating, assembling and fixing in position aluminium partitions using aluminium sections of mat finish or glassy finish in combination of plain grove, single grove and double grove as per requirements for the frames of overall size 63.5mm x 38.1 mm. with thickness of 2mm. having section weight, plain sections 1.054kg/m, single grove thickness 1.95mm. section weight 1.094kg/m double grove thickness 1.9mm section weight 1.094kg/m and bottom member 114.3 mm. x 44.45mm. thickness 3.18mm. weight 2.646 kg/m; aluminium louvres section of size 36. 5mmx34.93mm 1.45mm. thick section weight 0.429kg/m; bottom portions provided with 12mm. thick prelaminated sheet both sides of approved colour lamination exterior grade upto G.9m height, spacing of vertical member not exceeding 0.6 m. c to c; sections are cut to the required lengths, joints mitered and corners grinded subdividing frames tenoned and rivetted to the frames; the assembled frame stiffened with corner angles, stripped and fixed with screws, rawl plugs and teak wood gutties to R.C.C.columns on sides, R.C.C. lintels or beams at top and floor at bottom, including cutting chiselling and making good with cement mortar to match the	Sqm	49.80	3610.74
12	Providing, fabricating, assembling and fixing in position aluminium doors using following, aluminium mat finish or glossy finish, outer frame plain section 101.6x44.45mm thickness . 3.18mm, section weight 2.404 kg/m, door shutters vertical section 44.62x44.45mm thickness 3.18mm, section weight 1.505kg/m, top . section 47.62x44.45mm thickness 3.00mm, section weight 1.426kg/m bottom section 114.3x44.45 thickness 3.18mm, section weight 2.646kg/m, door central section 49.91 x44.45mm thickness 3.00mm, section weight 1.495 kg/m glazing clips 19x17.3x11 mm thickness 0.9mm section weight 0.124kg/m; aluminium sections cut to length joint metred corners grinded, the shutters pivoted opening arrangement with heavy duty aluminium alloy automatic door closures floor mounted, providing and fixing standard approved accessories, such as aluminium handle for full width or length, tower bolts, lock, pivots: P.V.C. or rubber gasket with 5.5m. thick plain glass for top and bottom panel; aluminium sections treated for removal of any rust and prevention of further rust formation, and coated with greasy materials for non-adherance of mortars or any other sticky materials; the assembled frame fitted with the	Sqm	3.15	6899.99
	Applying red lead ready mix priming coat over new steel or other metal surface including preparing the surface after thoroughly cleaning oil, grease, dirt and other foreign matter, and scoured with wire brushes, fine steel wool, sand papers including cost of materials, labour, complete as per specifications	Sqm	6.24	31.71
	SRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications.	Sqm	6.24	89.67


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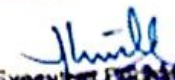
15	PROVIDING TRAPEZOIDAL PROFILED SHEET Providing and installing of pre painted Galvalume iron Trapezoidal profiled sheet of approved make 1060 mm width (1000 mm cover width), 25-30 mm crest height with crest distance of 200 mm c/c with 2 ribs at the centre for stiffening. The total coated thickness (TCT) of the sheet will be 0.47 mm +/- 0.02 mm tolerance Zinc-Alu Alloy coating AZ150 gsm as per ASTM 1397/A755-550 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling/self tapping screws of 25 mm length, to be fixed over the existing purlins, rafters, channels and trusses.	Sqm	24.75	842.00
16	Supply of water purification unit, installation and commissioning 1000LPH with Chloride Plant with mild steel vessel without UV	No's	1	622687.50
17	Additional price for installation of Ultra Violet System	No's	1	10125.00
18	Stone dust / Grit	Cum	25.80	1073.25
19	Providing and laying in position to required level or slope 230mm internal diameter salt glazed stoneware pipes grade A and jointing with stiff mixture of cement mortar in proportion of 1:1, testing of pipes and joints, including cost of materials, labour charges complete as per specifications.	Mtr	88.00	478.67
20	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.	Cum	12.90	2026.30
21	KSRRB M600-1. Construction of dry lean cement concrete mix CC1:5:10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 150 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. do OPC At 150kg/cum and coarse aggregate 0.86 cum, fine aggregate 0.58cum using concrete batch mix plant at 75cum/hr capacity with fixed form paver	Cum	12.90	3933.46
22	Cement concrete pavement. Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30, with 25mm and down size graded granite metal coarse aggregates and fine aggregates, with superplasticiser @3lts confirming to IS9103-1999 Reaffirmed-2008, mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rakers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications - M30	Cum	12.90	5276.10
	Filling available excavated earth (excluding rock) in sides cum of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications.	Cum	51.30	138.87


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24	Concealed Conduit System Supplying heavy gauge PVC conduit pipe 19/20mm dia 2mm thick conforming to IS 2509 with suitable size bends, metal/PVC junction boxes adhesive paste etc., and running before concreting the slab. The conduit should be tied to the reinforcement rods by using binding wires and unused ways of junction boxes and pipes ends should be covered using PVC and enclosures. run with 18SWG GI fish wire wherever necessary 19/20mm dia 2mm thick	Mtr	80.00	43.54
25	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100v grade, multistrand Copper conductor single core cable in open or concealed system of wiring with specified IS-694:1990 & conforming to GTP of	Mtr		
	1.0 Sqm		200.00	13.16
	2.5 Sqm		140.00	29.57
	4.0 Sqm		60.00	42.63
26	Point wiring using Copper wire without switch. Supplying and wiring adopting loop system in existing PVC Conduit/casing capping using 1100V Grade, COPPER conductor flexible multistrand FRLS PVC insulated, 2x1.5 Sq.mm Cable conforming to the GTP without switch, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet	Point		
	Using class A materials			
	Short point up to 3mtrs from tapping point to out let via switch		8	145.80
	Medium point a above 3mtr up to 6mtr from tapping point to out let via switch		4	217.69
	Long point a above 6mtr up to 10mtr from tapping point to out let via switch		2	338.18
27	Supplying and fixing of modular switch/ Socket/stepped electronic fan regulator/ dimmer/telephone socket etc on existing modular switch plate.	Nos		
	6Amps SP Switch		4	63.79
	6Amps 3way 5 pin socket		4	96.19
	16Amps SP Switch		6	115.43
	16Amps 3way 5 pin Socket		6	148.84
28	Supplying and fixing of modular switch/ Socket/stepped electronic fan regulator/ dimmer/telephone socket etc on existing modular switch plate as per IS 3854 and IS 1293 GROUP B 3.7.18) 1000-1200Watts Dimmer	Each	12.00	452.59
29	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required conforming to IEC 60898	Each	4.00	423.23
30	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia	Nos	4.00	2761.09
31	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 6.7.1) 16Amps	Each	2.00	121.50
2	Supply patty type fluorescent tube light fitting of 4'-36/40 watts fluorescent tube fitting, made out of M.S sheet and stove enameled with low loss open construction copper wound ferromagnetic ballast, starter, locking type brass contact holders mounted on double fold type sheet base fully wired for use on 230 Volts A C Supply including 1 No 4'-36/40 Watts fluorescent tube.	Each	10.00	344.25
	c) Group 'C'			
	SHORT POLES: (whereas clearance between Messenger wire and ground is inadequate) a) Supplying and fixing 40mm dia 2.90 thick GI pipe 1.8m long complete with atleast 2 GI pipe 1.8m, long complete with atleast 2 Nos of through bolts 12 mm dia with MS back plate 100x100x6mm dia with eye bolt fixed at top deadending messenger wire with masonry patch work etc., complete as per approved drawing (for single phase installations)	Each	2.00	531.56

34	INSULATED CABLE ON MESSENGER WIRE Using 2 single core wires for a single phase and 4 single core wires for 3 phase. Supplying and stringing PVC insulated and PVC sheathed 650/1100V class aluminium conductor of size supported by 3.15mm (10 SWG) GI messenger wire with box break insulators one at each end of the span with suspensoids at intervals of 0.75m. Each suspender shall be of porcelain reel insulator of suitable core through which insulated wire passes (single core or twin core as the case may be) and this reel insulator shall be fixed to the messenger wire using 2mm (No 14 SWG) GI wire suitably bent and twisted. Separate reel insulator shall be provided for each wire, the messenger wire shall be dead-ended on the clamp provided to the departmental pole vide item No.4 above (Page No.56 item No.8 a) Single Phase using 2 Wire e) 16 Sqmm	R mtr	80.00	80.00	
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 Signature of the contractor


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 Bruhat Bangalore Mahanagara Palike
 Dasarahalli Division, Bangalore-560044